

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Laurie H. Glimcher and John
Douhan III

Serial No.: not assigned

Filed: Herewith

For: *HUMAN C-MAF COMPOSITIONS AND
METHODS OF USE THEREFOR*

Attorney Docket No.: HUI-027CPDV1

Group Art Unit: 1632

Examiner: J. Woitach

Box Patent Application
Commissioner for Patents
Washington, D.C. 20231

"Express Mail" Mailing Label Number EL 916823313 US

Date of Deposit June 12, 2001

I hereby certify that this transmittal letter and the papers referred to as being enclosed therein are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Commissioner for Patents, Box Patent Application, Washington, DC 20231.

Signature

Larry Taylor

Please Print Name of Person Signing

PRELIMINARY AMENDMENT

Dear Sir:

Prior to Examination please amend the above-referenced application as follows.

In the claims:

Cancel claims 1-28, and add new claims 33-60 as follows.

33. (New) The method of claim 30, wherein the DNA molecule comprises a
Maf Response Element.

34. (New) The method of claim 31, wherein the indicator cell contains a recombinant expression vector encoding the human c-Maf.

35. (New) The method of claim 31, wherein the reporter gene is operatively linked to regulatory sequences of a Th2-associated cytokine gene.

36. (New) The method of claim 34, wherein the human c-Maf-coding sequences are operatively linked to regulatory sequences that allow for constitutive expression of human c-Maf in the indicator cell.

37. (New) The method of claim 34, wherein the human c-Maf-coding sequences are operatively linked to regulatory sequences of the endogenous human c-Maf gene.

38. (New) The method of claim 31, wherein the reporter gene is a Th2-associated cytokine.

39. (New) The method of claim 38, wherein the Th2-associated cytokine is interleukin-4.

40. (New) The method of claim 31, wherein the reporter gene comprises nucleotides -157 to +58 of the proximal interleukin-4 promoter

41. (New) The method of claim 31, wherein the reporter gene comprises about 3 kb of upstream regulatory sequences of the interleukin-4 gene.

42. (New) The method of claim 31, wherein the reporter gene is selected from the group consisting of genes that encode chloramphenicol acetyltransferase, beta-galactosidase, alkaline phosphatase or luciferase.

43. (New) The method of claim 31, wherein the indicator cell is derived from a cell line which does not normally express human c-Maf.

44. (New) The method of claim 31, wherein the indicator cell is derived from a B cell.

45. (New) The method of claim 44, wherein the indicator cell is derived from the M12 B lymphoma cell line.

46. (New) The method of claim 31, wherein the indicator cell is derived from a Th1 cell clone.

47. (New) The method of claim 46, wherein the indicator cell is derived from AE7 cells.

48. (New) The method of claim 31, wherein the indicator cell is a nonlymphoid cell.

49. (New) The method of claim 48, wherein the indicator cell is a HEPG2 hepatoma cell.

50. (New) The method of claim 48, wherein the indicator cell is a yeast cell.

51. (New) The method of claim 32, wherein the effect of the test compound on an immune response is determined by determining the effect of the compound on expression of a Th2-associated cytokine gene.

52. (New) The method of claim 51, wherein the Th2-associated cytokine gene is an interleukin-4 gene.

53. (New) The method of claim 32, wherein the effect of the test compound on an immune response is determined by determining the effect of the compound on the development of T helper type 1 (Th1) cells.

54. (New) The method of claim 32, wherein the effect of the test compound on an immune response is determined by determining the effect of the compound on the development of T helper type 2 (Th2) cells.

55. (New) A method for identifying a protein that interacts with human c-Maf protein, comprising

providing an indicator cell comprising a reporter gene operably linked to a transcriptional regulatory sequence and a first chimeric gene which encodes a first fusion protein wherein the fusion protein comprises human c-Maf;

contacting the indicator cell with a library of second chimeric genes, which library encodes second fusion proteins, wherein the expression of the reporter gene is sensitive to interactions between the first fusion protein, the second fusion protein and the transcriptional regulatory sequence; and

determining the level of expression of the reporter gene in the indicator cell to thereby identify a protein that interacts with human c-Maf.

56. (New) The method of claim 55, wherein the library of second chimeric genes is prepared from cDNA library from Th2 cells.

57. (New) A method for identifying a compound that modulates the activity of a human c-Maf protein comprising

providing an indicator cell comprising a human c-Maf ,

contacting the indicator cell with the test compound, and

determining the effect of the test compound on human c-Maf activity by evaluating the level of cytokine production in the indicator cell in the presence and absence of the test compound.

58. (New) The method of claim 57, wherein the level of cytokine production is determined by detecting cytokine mRNA in the indicator cell.

59. (New) The method of claim 57, wherein the level of cytokine production is determined by detecting cytokine secretion into the culture supernatant.

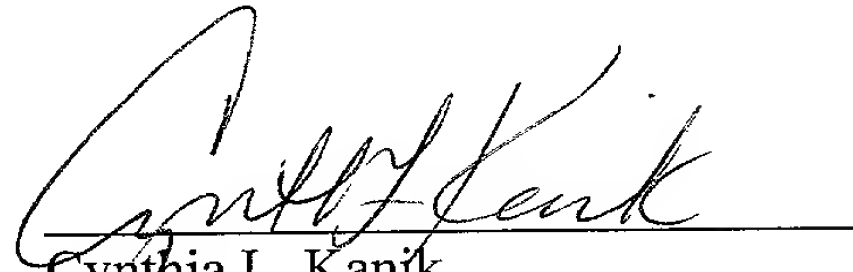
60. (New) The method of claim 57, wherein the cytokine is interleukin-4.

CONCLUSION

Applicants respectfully submit that the application is in condition for allowance, and such action is requested. If a telephone conversation with Applicants' Attorney

would expedite prosecution of the above-identified application, the Examiner is urged to call the undersigned at (617) 227-7400.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Cynthia L. Kanik', written over a horizontal line.

Cynthia L. Kanik
Registration No. 37,320
Attorney for Applicants

LAHIVE & COCKFIELD, LLP
28 State Street
Boston, Ma 02109
(617) 227-7400
Date: June 11, 2001